

THE CHEMIST

April, 1954

VOLUME XXXI



NUMBER 4



FRANCIS J. CURTIS

Receives Honorary AIC Membership

(See page 137)

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Volume XXXI

April, 1954

Number 4

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The Promising Field of Fluorochemicals, R. M. Adams

Award of New Jersey Chapter Honor Scroll to Dr. P. A. van der Meulan

IN THIS ISSUE

Annual Meeting Program	129
Annual Meeting Committees	132
Editorial:	
The Vital Life of the Chemist	135
Organization Planning, Francis J. Curtis, Hon. AIC	137
Francis Joseph Curtis	140
Presentation	145
The Responsibility of the Chemist to His Country,	
Dr. Emil Ott, F.A.I.C.	147
Communications:	
Voluntary Certification of Professional Personnel	151
Council	155
AIC Activities:	
Honor Scroll Meeting, New York Chapter	158
Summer Positions	158
Western Chapter Honor Scroll	159
Will You Come	159
Louisiana Chapter Honor Scroll	160
Opportunities	163
For Your Library	164
Something New	166
Condensates	167

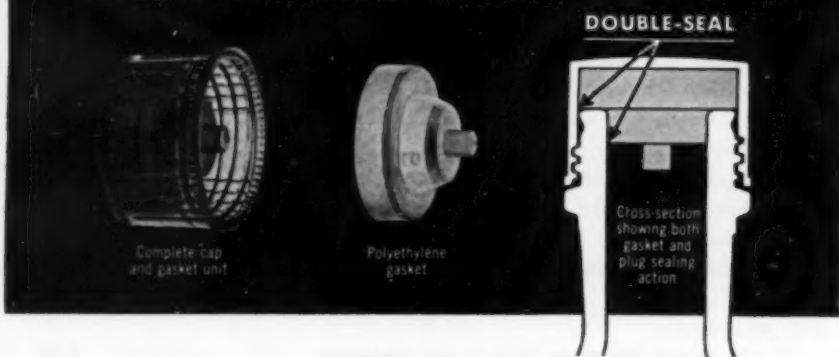
TO COME

In the May CHEMIST, the Ohio Award to Dr. James Scott Long, F.A.I.C., chemical director of Devoe & Reynolds Co., Inc., Louisville, Ky., will give us a "behind the scenes" story of the life of a chemist whose industry (in this case the paint industry) develops rapidly around him and to which he contributes. A promising field for the future — fluorochemicals — is discussed by R. M. Adams. News and other material of professional interest will make the May issue of THE CHEMIST worthwhile reading.

TO SERVE YOU

H. Reeve Angel	133	O. Johnson & E. Scudder	163
R. S. Aries & Associates	161	Laboratory Furniture Co. Inc.	165
Baker & Adamson.....	Inside Front Cover	The Lento Press	158
J. T. Baker Chemical Co.	128	E. Machlett & Sons	162
Central Scientific Co.	125	Mallinckrodt Chemical Works	136
Commercial Solvents Corp.	134	Molnar Laboratories	161
Croll-Reynolds Co., Inc.	167	Oldbury Electro-Chemical Co.	153
Evans Research & Development Corp.	152	Phoenix Chemical Lab., Inc.	150
Fisher Scientific Co.....	Inside Back Cover	Robinette Research Labs. Inc.	153
Hardesty Chemical Division	154	Schaar & Company	168
Johns-Manville	146	Foster D. Snell, Inc.	150
U. S. Stoneware	Outside Back Cover		

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THIRTY-FIRST ANNUAL MEETING PROGRAM

The American Institute of Chemists

May 12, 13, 14, 1954

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Wednesday, May 12th

JERSEY DAY

9:00 A.M. Registration:

Advance Registration (Received by Chester A. Amick, chairman, Committee on Registration, at Bound Brook, N. J., on or before May fifth.)

AIC Members	\$3.00
Non-Members	5.00
Students	1.00

Registration at Door

AIC Members	\$5.00
Non-Members	6.00
Students	1.00

(There is no registration fee for wives of members attending the meeting. Registration forms and hotel reservation cards have been sent to all AIC members. Others may request advance registration forms from The American Institute of Chemists, 60 E. 42nd St., New York 17, N. Y.

Coffee Hour (no charge) for Wednesday registrants.

Morning and afternoon: Golf (Registration \$1.00 does not include greens fees or caddies. Please Register in advance.) Prizes.

1:00 P.M. Special tours leaving hotel (Tickets \$1.50).

Tour A: Trip to Lenox, Inc., world-renowned makers of china.

Tour B: Trip to Naval Air Station, Lakehurst, N. J. (Names of those taking this trip must be received by May first.)

5:00 P.M. AIC President Work's Reception to the National Council.

6:15 P.M. Dinner Meeting, AIC National Council and Board of Directors.

8:00 to 9:00 P.M. Color films. (No charge.)
"New Jersey Journeys" and other travelogues.

Thursday, May 13th

8:00 to 9:30 A.M. Registration (continued).

Coffee Hour (no charge) for Thursday Registrants.

10:00 A.M. Annual Business Meeting of The American Institute of Chemists. Announcement of the election of new officers and councilors. Vote on revision of Constitution. Other Business.

- 12:15 P.M. Informal Luncheon (tickets \$3.50) speaker: Dr. August Merz, Consultant, American Cyanamid Company, "The Historical Background of Chemical Industry in New Jersey."
- 2:00 P.M. Panel Session, "Legal Aspects of a Chemist's Life." Chairman: Dr. George L. Royer, Chairman of the Committee on Employer-Employee Relations; Administrative Assistant to General Manager, Research Division, American Cyanamid Co., Bound Brook, N. J.
- "Report of the Sub-Committee of the Employer-Employee Relations Committee on Contracts," Dr. Lloyd A. Hall, Technical Director, Griffith Laboratories, Inc., 1415-31 W. 37th St., Chicago 9, Ill.
- "Contracts From a General Point of View," Richard H. Gregory, Jr., Counsellor-at-Law, Union Carbide and Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
- "Patents From a Legal Point of View," John T. Kelton, Patent Attorney, Watson, Leavenworth, Kelton and Taggart, 100 Park Ave., New York 17, N. Y.
- "The Law and Personal Problems," W. E. Fairbanks, Assistant Secretary and General Counsel, Thomas J. Lipton, Inc., Hoboken, N. J.
- 2:00 P.M. For the Ladies:
Bridge. (No charge, but please indicate in advance if you will play.) Prizes.
Fashion Show. (No charge.)
- 4:30 P.M. Social Hour. (No charge.)
- 6:30 P.M. Informal Buffet Dinner. (Tickets \$3.50.)
- Until 9:00 P.M. Beer and Lemonade Abund. (No charge.)
- Program:** Professional Quiz for Chemists and Their Wives. Introduction: Dr. Max Bender, American Cyanamid Co., Bound Brook, N. J. Quizmaster, Savery F. Coneybear, Associate Research Director, Colgate-Palmolive Co., Jersey City 2, N. J.
- Report by Dr. D. L. Cottle, of Standard Oil Development Co., on "Are Chemists Human?" (Lively questions about professional subjects submitted by AIC members will be answered or discussed both by experts and by those of the audience who wish to contribute.)

Friday, May 14th

- 8:00 A.M. National Council Breakfast.
- 9:00 A.M. Registration—continued.
Coffee Hour. (No charge) for Friday registrants.

ANNUAL MEETING PROGRAM

- 10:00 A.M.** Panel Discussion, "Education for the Chemical Profession." Moderator: Dr. Harvey A. Neville, Chairman Committee on Education; Dean, Graduate School, Department of Chemistry, Lehigh University, Bethlehem, Pa.
- "Undergraduate Training," Dr. Hubert N. Alyea, Professor of Chemistry, Princeton, N. J.
- "Graduate Training," Dr. Henry B. Hass, President, Sugar Research Foundation, Inc., New York, N.Y.
- "Continuing In-Service Study," Dr. Thomas H. Vaughn, Vice President, Research and Development, Colgate-Palmolive Company, Jersey City, New Jersey.
- "On the Part of Chemical Industry," Dr. Per K. Frolich, Vice President for Scientific Activities, Merck & Co., Inc., Rahway, N. J.
- 12:15 P.M.** Honor Recipients' Luncheon. (Tickets \$4.00.) An Opportunity to meet Gold Medal Recipients, Honorary Membership Recipients, and the current Recipients of the Chapter Awards. Toastmaster: Dr. Randolph T. Major, Vice President, Merck & Company, Inc. Announcement of Honorary Membership Awards for the coming year, Dr. Sidney D. Kirkpatrick, Chairman, Committee on Honorary Membership. Presentation of Honorary AIC Membership to Dr. William J. Sparks, 1954 AIC Gold Medalist.
- 2:00 P.M.** General Session.
- Chairman, Dr. Lincoln T. Work, Retiring AIC President.
- "Security Versus the Challenge of a Vital Life," Dr. Work.
- "Engineering Manpower." T. A. Marshall, Jr., formerly with Engineering Manpower Commission of Engineers Joint Council.
- "Psychological and Emotional Problems of Technical and Executive Personnel." Dr. Lydia Giberson, Personnel Advisor to Employees, Metropolitan Life Insurance Company.
- "Consultative Management," Arthur Slade, of Rogers, Slade & Hill, 342 Madison Ave., New York 17, N. Y.
- "Some Phases of Education," Dr. Lewis Webster Jones, President Rutgers University, New Brunswick, N. J.
- 6:00 P.M.** Reception to Medalist. Courtesy of Standard Oil Development Company.

7:00 P.M. Gold Medal Dinner. (Tickets \$10.00. Choose, in advance, filet mignon or lobster.)

Toastmaster: Dr. Lincoln T. Work, Retiring AIC President.

Speakers for the Medalist:

Dr. Carl S. Marvel, Professor of Organic Chemistry, University of Illinois, Urbana, Illinois.

Dr. E. V. Murphree, President, Standard Oil Development Company.

Presentation of the Gold Medal: Dr. Gustav Egloff, Past President, The American Institute of Chemists; Chairman, Jury of Medal Award.

Acceptance: Dr. William Joseph Sparks, Director, Chemical Division, Standard Oil Development Co., Linden, N. J.; Chairman of the Division of Chemistry & Chemical Technology, National Research Council.

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Treasurer, Dr. W. A. Raimond, 185 Dahlia Terrace, North Plainfield, N. J.

Chairman of Registration, Chester A. Amick, American Cyanamid Company, Bound Brook, N. J.

Chairman of Publicity, Dr. L. T. Eby, Esso Laboratories, Chemical Division, P. O. Box 51, Linden, N. J.

Chairman of Special Events, Dr. W. R. Sullivan, Hoffmann-La Roche, Inc., Nutley 10, N. J.

Chairman of Program Committee, Dr. Max Bender, American Cyanamid Co., Bound Brook, N. J.

Chairman of Jersey Day Committee, Theodore R. Donlan, 626 Duquesne Terrace, Union, N. J.

Annual Meeting Committees

Honorary Chairman, Dr. Randolph T. Major, Merck & Company, Rahway, N. J.

General Chairman, David W. Young, 617 Salter Place, Westfield, N. J.

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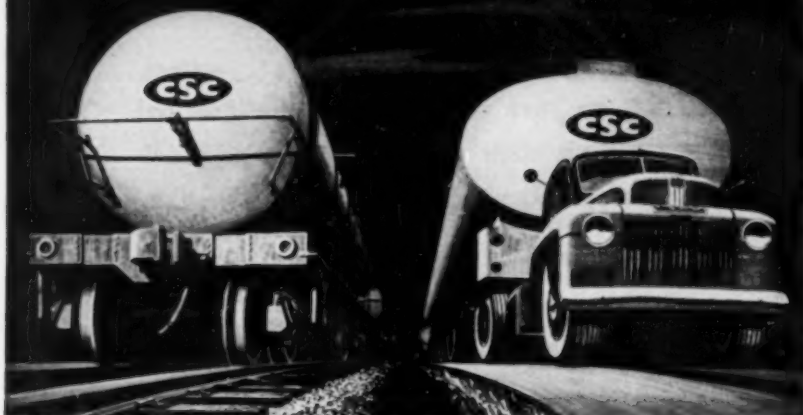
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EDITORIAL

The Vital Life of the Chemist

DR. LINCOLN T. WORK, president of the INSTITUTE, has addressed an invitation to a number of leading educators and industrial executives, inviting them to attend the Annual Meeting at Asbury Park, or at least be represented. Since mailing lists are not infallible, and worthy men may be missed, excerpts from the notes are included here:

"As you know, THE AMERICAN INSTITUTE OF CHEMISTS is interested in the chemist as an individual and in his relations with other people. The objectives of the annual convention of the INSTITUTE will follow this theme of "The Vital Life of the Chemist." There will be general sessions on "The Legal Aspect of the Chemist's Life" and "Education for the Chemical Profession," as well as on psychological and emotional problems, security, manpower, consultative management, and a survey of the personal lives of chemists.

A three-day program is planned for May 12-14, 1954, at the Hotel Berkeley-Carteret in Asbury Park, N. J. The New Jersey Chapter is host for this meeting and would like to have as many New Jersey chemists present as possible. It would please us if you can attend some of the sessions and also see that some of your associates can be there. If you could particularly plan to have someone there for Jersey Day, May 12, it would give the meeting a good start. Of course, the Honor Recipients' Luncheon and the Gold Medal Dinner on May 14 will climax the convention."

We ask your cooperation to implement this letter, by coming and by spreading the word to others. Personnel people may find this meeting especially helpful. The spontaneous enthusiasm of the New Jersey Committee assures success. You will not want to miss it.

The Answers: To the ever-present threat of fire lie in the development of vital safety measures and a continuously sustained fire prevention and protection program, Mathew M. Braidech, F.A.I.C., research director, National Board of Fire Underwriters, New York 38, N.Y., told delegates to the National Safety Congress in Chicago.

Appointed: Coordinator of research, by Evans Research and Development Corp., New York, N.Y., Dr. Murray Berdick, M.A.I.C., who had been a member of the Evans Research staff for five years before he returned to graduate studies at Polytechnic Institute of Brooklyn, where he recently received the Ph.D. degree in chemistry.



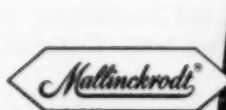
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Organization Planning

Francis J. Curtis, Hon. AIC

Vice President, Monsanto Chemical Company, St. Louis 4, Missouri

(Acceptance address when Honorary AIC Membership was awarded to him in St. Louis, Missouri, March 23, 1954)

WHEN the first cave man hit a woman on the head and dragged her into his cave he started organization planning. The family is the basic unit and it was early found that a division of labor and definition of spheres of interest promoted smooth operation. We will not go into the matter of who was the definer. The father was the hunter and the food gatherer. He roamed far and wide bringing back the essentials of living. The mother was the housekeeper, cook and the cultivator of the garden plot. It was she who found that if one fed the earth god with a few kernels of wheat or corn he gave back a hundred-fold at first but gradually grew tired. Then it was time to move—hence the human race spread over the earth. I have an idea that in those days the children did not get much minding but as soon as they were old enough they became helpers in the various tasks. A big family was an asset and not a liability.

Practically all of the early organization plans were based on an enlargement of the family. As the father had been the boss, so the group was headed up by an autocrat even in the stage of empires.

Tiny breaks appeared with the growth of democracies in Greece but

they were embryonic and did not last very long. Their importance was as a presage of things to come. When the plan broke down due to weakness or incompetence, wars resulted from outside attacks and revolutions from within.

From time to time new devices were brought into play by organization planning to stabilize autocracy more successfully such as the Senate of the Roman Republic, an oligarchy, so we may say that organization planning has really been with us from the beginning and that only its spots have been changed, not its function.

Modern Definition

When we look at organization planning in modern times, we find that it has only lately become a conscious activity rather than an unconscious one; only recently a formal process instead of an informal. An organization in the terms that we are using means a group of people banded together in a structure designed to accomplish some end. The term, therefore, is broader than its application to business but for my purposes, being wise, I will keep to the latter field. In this area, organization planning may be considered the conscious definition and study of functions, duties, and relationships between various

factors in the organization. This is confessedly gobbledygook but I will try to define my way out of the mess. By functions, I mean definite areas of action such as purchasing, sales, production, research and so on. In any concern such as a chemical company, these functions must be provided for even though they may all be carried out by one man in a very small concern. One of the first jobs of organization planning is to analyze the situation at hand and see just where and how and by whom these functions are accomplished.

By such study we are brought to duties which are what the individual must do to carry out the functions he must perform. In any organization consisting of more than one individual there are problems of relationships between people and such relationships must be clarified wherever functions and duties impinge on one another. Yet, impinge they must if anything is to be accomplished. Individuals revolving by themselves in a vacuum will be definitely short of output and long on frustration. But uncontrolled impingement leads to chaos and the last state of the man is worse than the first.

Use

Careful analysis by organization planning will indicate the best general form of organization and since this is fundamental to everything else, it is inconceivable that too much study can be placed upon it. Whether the general form of organization shall

be decentralized or centralized, straight line, or line and staff will be a large determinant in the success of the corporation.

No one can lay down a law as to which is best and if he could, there would not be much need of organization planning or organization planners. If one studies the organization charts of various companies, one is struck immediately with the intense degree of variation in detail, showing how necessary it is to tailor the scheme to the particular circumstances and to the particular time. Any organization must live in a framework of time as well as space. All that is fixed is change.

An eternal argument which will never be settled is whether the organization should be designed on a theoretical basis without respect to the individuals who are to form it or whether it should be built around the men and women who are its component parts. Like most things, it would seem that the truth is part way between. It is folly to try to force people into grooves in which it is impossible for them to work, and, at the same time, it is equally foolish to subject the whole organization to the whims and personal idiosyncracies of apparently strong personalities. Whether the bellow is strong or not is moot. At any rate just where the dividing line should come is individual for each case and will be changed from time to time as people change or even as the business itself changes.

ORGANIZATION PLANNING

The fundamental tool of organization planning is accurate job descriptions, not their preparation *per se*, but their use as a means of study. Such analysis may indicate a change in assignments of duties or even at times an elimination of some of them and the improvement of efficiency by reducing unnecessary manpower. These job descriptions lead to the setting up of job specifications which give guidance as to the type of training, personality, and background which is optimum for the holder. So we may improve our personnel placement and, therefore, our efficiency. The same job descriptions are of invaluable aid in performance reviews, since it is so much easier to go down through a list of this kind and ask yourself how well the man has performed than to try to guess and through failure of memory to slip up on some important point. A good many rating systems rely too much on subjective opinions of personality traits. At long last, in the indeterminate future may come job standards free of the subjective, but this at present is hardly more than a pious hope.

The writing of job descriptions and their use often brings out clearly gray areas of conflicting authority which are more prevalent than one thinks. The clarification of these overlapping relationships promotes harmony throughout the whole organization. It is sure, or reasonably sure, defense against empire building

since the undefined is usually the prey of the predatory. Every organization contains a number of rugged individualists and without them it would not be worth much, but they must be regulated and prevented from doing things in the pursuit of their own ends which would be a damage to the activities and purposes of the group as a whole.

The analysis of necessary functions and the definition of duties of individuals give an excellent opportunity of making sure that there are no holes in the organization. It is never too easy to think of everything and only by careful planning can we be sure that there are no loopholes where things fall between the bed and the wall. I am sure that everyone of any length of experience can bring such cases to mind which have resulted in considerable redness of countenance. Furthermore, the freeing of executives from the settling of squabbles provides time for them to work on more important subjects. A man whose occupation consists of knocking peoples' heads together will never build a business. A fireman may save a house but he doesn't build one.

Since we now have a method of determining the best utilization of manpower and know the types of personnel required to handle each position best, we are in an ideal situation to design the best continuous supply. A personnel crisis not brought on by pure accident is an evidence of insuf-

ficient or inefficient organization planning.

One of the main products of organization planning is the production of a management guide which embodies the conclusions of the studies which we have been discussing. Here we touch on the important subject of communications. Obviously, it does no good to have this research carried out if its results are not brought home clearly to those who must use it. The management guide however, should be exactly what its title says, a guide and not a rule. The making of decisions is too complicated for all of the factors to be written down. Nor should the manager be bound too tightly in his operations. This brings out a danger in organization planning which is a trap into which many planners fall. Its over-use can strangle the organization in red tape, reduce opportunities for decision making and impair development of men

and company. As in everything else, we must be guided by the old Greek maxim, "Nothing Too Much."

Conclusion

We conclude, therefore, that organization planning is not new-fangled. It was involved in the first family, the first hunt, the first time that men worked together. It has gone on through all history and will continue to do so. Like research which has a similar story, organization planning has been set aside as a separate function and recognized as such only in the last few years. Everyone of you has done it but few have specialized in the doing and as a separate field it is still establishing its norms.

The prize is a smoother running team with every man in his best place and every place filled by the best man, with lost motion reduced to a minimum and unnecessary activities at the nadir.

Francis Joseph Curtis

John J. Healy, Jr., F.A.I.C.

Monsanto Chemical Co., 1700 S. Second St., St. Louis 4, Missouri

(Presented, here slightly condensed, when Honorary AIC Membership was awarded to Francis J. Curtis, at a meeting held in St. Louis, Mo., March 23rd.)

FRANCIS JOSEPH CURTIS was born April 22, 1894, in Cambridge, Mass., son of James and Mary (McCarthy) Curtis. He was educated at Cambridge Latin School and Harvard University where he received the B.A. in chemistry in 1915.

Immediately following graduation, Mr. Curtis started work in the research department of the Merrimac Chemical Company, South Wilmington, Mass. In 1920 he was transferred to production.

In November 1921, I went to work

for the Merrimac Chemical Company at its plant in South Wilmington, Mass. Since the majority of technical personnel resided in Boston, they traveled back and forth by the same morning and evening accommodation train. As my job was replacing a girl in the analytical laboratory, I did not initially have much contact with the men higher up in research and production, so I was quite surprised and pleased, about a month after I started in, to have a fellow with red hair and, believe it or not, a red mustache, sit down beside me one night on the way to town and start to question me. It turned out that his name was Curtis and he was in charge of the nitric acid, the muriatic acid, and the Glauber's salt plants. Actually I think I was calling his "Frank" before I knew his name was Curtis — everybody did, and everybody does. I also discovered that he was an interesting and stimulating companion, who had no difficulty in arousing the potentialities existing inside people inclined to be introverts. Then and there I became impressed with two of Frank's many outstanding characteristics. In the first place, he is always interested in younger people and does his best to stimulate what abilities they have. He does it in such a manner, too, that the fellow always thinks that he himself had the bright idea, not Curtis. The other characteristic is his ability to make any conversation stimulating and provocative. I have never found

it difficult in all these years to get into an argument with Frank. I have found it very difficult to win one, principally because it's always a tremendous job to get in one word to his ten or twenty.

As a production man, Frank was not only good technically, but he was a master at human relations. Frank, some of whose forebears came from the South of Ireland (*English*), had as foremen under him two fellows by the names of Mike Colvin and Henry Barrett. Both of them were big, strong, upstanding lads (plural of broth-of-a-boy) who outweighed Frank at least two to one, and both of them came from the North of Ireland. In addition, Frank was a Harvard man — sometimes a difficult situation even in New England. But Frank handled this situation with such masterly tact that to their dying days both Colvin and Barrett thought that F. J. Curtis was the finest production man that ever hit the Merrimac Chemical Company.

In 1925 he was assigned to the sales department. The principal job at the start was to look after complaints — really, he had a title, technical advisor to the Sales Department. It was necessary that he have a good technical knowledge of the products of the company and, at the same time, have personal characteristics that would endear him to the customer. Nobody could fit these qualifications better than Frank and so he started on the road. He was

probably about the first technical service man in the chemical industry and he certainly was one of the best. Frank pioneered not only the concept but the practice of the technical service man and the development department as we know it today in the chemical industry. The Commercial Chemical Development Association was really started by him with the help of a few other fellows in a smoke-filled room in Pittsburgh some ten years ago. Men in technical service today, who like to tell the customer that they will refer his complaint back to the research department, can take a very good lesson from Curtis' ability to settle things on the spot to the customer's satisfaction. A story will illustrate this.

A customer in Worcester, to whom we were selling sulfuric acid, complained that the acid that he was getting was no good; It didn't have any bite the way the old stuff did. Frank was on the job right away and found out that the gist of the complaint was that this customer had been receiving acid in carboys labeled "O.V.66°". The last lot he had received was labeled "Sulfuric Acid" by some purist, and he was convinced that it was not as good as the O.V. 66° we used to send him. Frank agreed with him and took action immediately. On the same day the carboys were picked up by truck, brought to the local warehouse. Curtis, himself, shaved off the offending words "Sulfuric Acid", restenciled the car-

boys "O.V. 66°" and had them back in the customer's plant before night-fall. From then on everything went smoothly.

You can see from this that Frank had other outstanding characteristics. He was enough of a salesman to recognize that the customer was right; he was enough of an executive to accept the responsibility for making the decision on the spot and he was enough of a psychologist to realize that there could be a tremendous difference between O.V. 66° and sulfuric acid.

In 1930 he became director of development of the Merrimac Company, which in 1929 had become the Merrimac Division of Monsanto.

No biography of Frank would be complete without a chapter on "Curtis the Athlete." Just about this time he felt impelled to do something about the lighter side of life, on the basis that "All work and no play makes Jack a dull boy." Accordingly, he joined the Harvard Club and took up the game of squash. At the start, his only opponents were Bill Rand and a fellow by the name of Eddie Chapin. Frank couldn't handle either of them due to the fact that Bill Rand became "Bull" and not "Bill" on a squash court, and he was a little too rugged for Frank; and Eddie Chapin, because Eddie was a real expert at the game and, at that time, could come pretty close to giving anybody in Boston a lesson. Frank solved this problem characteristically

FRANCIS JOSEPH CURTIS

by inducing a few of his younger associates to take up the game. Frank was the teacher and not only derived a great deal of satisfaction from teaching the game, but also maintained his supremacy and was able to beat all of them for about the first year. During the second year, the tide began to turn and in the third year, youth was served, Frank found himself back in the same old spot of the consistent loser. Characteristically though, he was always willing to try, and it was a great source of comfort to the rest of us to know that on the occasion of our annual dinners, known as the dinner of the Shales and the Technicals, Curtis like Washington, could always be counted upon to be first in the hearts of his fellow workers but last in the squash league. Although it is possible, even today, to get a rise out of Frank by reminding him of his ability as a squash player, this demonstration of man's ingratitude to man has never really soured his disposition, even though he followed the same pattern with incursions into tennis and golf.

Incidentally, as a travelling man, Frank has always practiced the good New England virtue of thrift and has used an expense account with extreme moderation. He never would take a taxicab if he could walk, even though it were raining. He could always induce his associates to go along with this just once, but when they figured out that it cost a dollar to have a suit pressed and only fifty

cents for a cab fare, then came the parting of the ways. I don't think Frank really believes this arithmetic yet.

He was transferred to the St. Louis headquarters of Monsanto in 1935. To most proper Bostonians, this would have been a fate worse than death itself. Not so to Curtis. He did not tarry to come by way of Dedham, Mass. He came in one hop to St. Louis and in one day, he was a St. Louisan. He still is, and although he occasionally likes to eat Gloucester fish cakes, he considers Boston to be a cold damp place with too much salt in the water. I dare say that he, too, will have difficulty in identifying the Louis of St. Louis as X, XI, quatorze, or dix-huit.

His first activities were concerned with the acquisition of technical personnel, and he started the system of college visits and interviewing which is Monsanto's system today. The Academic Leave of Absence which sends Monsanto scientists back to college, the Industrial Leave of Absence which brings college professors to Monsanto, the Senior Scientist designation, which affords scientists the chance to advance as scientists rather than administrators, are in whole or in part a reflection of his interest in younger professional men.

He has received many promotions and many honors since 1935. In Monsanto: director of Development 1939; vice president 1943; director 1949. Professionally: president A.I.-

Ch.E.; president S.C.I., 1952.

He has served his country. In 1945 he was sent to Europe as a technical consultant to the Chemical Warfare Service. In 1951 he was assistant administrator of the Chemical Rubber and Forest Products Bureau of the NPA.

In spite of all these honors, Frank remains one of the most eligible bachelors in the United States. This is the constant subject of many clever campaigns on the part of well-meaning ladies who would gladly become candidates for the office of greatest friend and severest critic. His popularity is probably supreme with the wives of his friends who are continually conspiring to wed Frank to some exceptionally fascinating friend of theirs. They set the stage by presenting for his individual benefit scenes of idyllic connubial bliss and domestic perfection. Frank, always a discriminating eater — probably we should describe him as a "gourmet" of limited tastes — projected prospective hostesses into indescribable dither, and stimulated them into devising rare dinners consisting of breast of guinea hen, asparagus out of season, lemon meringue pie of superb delicacy and flavor, only to learn that the piece de resistance should consist of Boston baked beans, corn beef hash, canned peas and No Soft Pies.

These are a few of the incidents of my long acquaintance with Frank

which demonstrate his genial reactions to diverse situations. I have purposely not mentioned until now the more substantial elements of his personality — his active mind, his devotion to cultural pursuits, literature, music, and art. I have deliberately intended to inject a light touch because it is, I think, in character with a man who is essentially devoid of the Hollywood concept of the dignity that should surround a man of his distinction. Frank is too young in spirit, too active in mind, to ever become the stodgy autocrat. His dignity is within himself. He is the active idealist — a man who set high standards of moral, intellectual and professional leadership, and implements them by living up to them himself without ostentation. In all my thirty years of association with him, I have never heard him utter a profanity, an obscenity, or a vulgarity. Yet he does not wear the hair shirt. He likes his Scotch; he is genial; he is companionable. He is not a crusader who insists that others meet his standards. I think the only disparaging words I have ever heard him utter had to do with the Senator from Wisconsin, and then it was the principle, rather than the man.

He is a man who is motivated essentially by a deep interest in his fellow men and in encouraging them in the development of their individual abilities.

Thirty years of association with Frank, in business and out, have



*Herbert F. Schwarz, Chairman, Chicago Chapter, Francis J. Curtis;
AIC President, Lincoln T. Work, and John J. Healy, Jr.*

demonstrated that he is a man of high imagination, admirable character, intuitive vision, and a most stimulating and enjoyable companion as well.

Presentation

HONORARY AIC Membership was presented to Francis J. Curtis, vice president of Monsanto Chemical Company, at a dinner meeting of the Chicago Chapter of THE AMERICAN INSTITUTE OF CHEMISTS, held in St. Louis, Missouri, at the Sheraton Hotel, March 23, 1954.

Dr. R. L. Womer of Olin Industries, Inc., was chairman of the Arrangements Committee, assisted by Philip R. Tarr of Monsanto, George P. Bratton of Anheuser-Busch, Inc.,

and L. A. Watt from Monsanto. A reception given by Monsanto Chemical Company preceded the dinner.

John J. Healy, Jr., of Monsanto, long associated with Mr. Curtis, gave an intimate story of the recipient's life. Dr. Lincoln T. Work, AIC president, presented the certificate of Honorary Membership to Mr. Curtis, who responded with a discussion on one of his special responsibilities at Monsanto, "Organization Planning." The citation to Mr. Curtis reads:

American chemistry's ambassador of international good will; dynamic leader in the organized work of the chemical profession; friend and confidant of chemists, old and young; sober student and distinguished practitioner of the science of human relations.



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The Responsibility of The Chemist to His Country

Dr. Emil Ott, F.A.I.C.

Director of Research, Hercules Powder Company, Wilmington, Delaware
(Presented at the New York Symposium on Public Relations sponsored by
The American Institute of Chemists and the American Chemical Society.)

THIS SUBJECT has given me an opportunity to re-evaluate my own responsibilities and to review performance in this field. This may sound like too personal an approach. However, it is in the nature of human relations that their roots are to be found in individuals. Gatherings like this have three major aspects:

(1) The individual makes an accounting of his position.

(2) The individual is given an opportunity to review his position with others.

(3) The group may be stimulated into concerted thinking and action.

Responsibility to his country is not limited to the chemist. It applies to every citizen and other adult inhabitants. Hence, why this limitation in our subject? I construe it to mean that we should not forget that *we* as chemists have a *larger* than average and also a *unique* responsibility. To exemplify: It is considered a normal responsibility of every citizen to do his share for the defense of his country. The chemist in common with other scientists and technologists is uniquely qualified to contribute to the invention, production, and maintenance of countermeasures and weap-

ons and is expected to contribute substantially in this field.

We are not discussing here the pros and cons of war. None of us enjoy war. But we are, nevertheless, proud of the fact that as long as there is a defense of our country required, chemists are doing their part well. Unfortunately, the threat of further war is daily with us. Scientific and technological skills are increasingly needed in this connection. Our unique responsibility as chemists is clear. It has been met in the past and will be met in the future.

No further discussion along these lines is needed, so let us proceed to more constructive aspects.

I have indicated earlier that we as chemists have a responsibility to our country, our community, our society, and more broadly to our civilization. This responsibility is larger, considerably larger, than average. Why do I make the statement? I make it because if it is true, we are compelled to deliver maximum performance within our abilities. I believe it to be true and hence, I believe in our exceptional obligation to our society.

We as chemists have been given the opportunity to study in colleges

and universities. We have had the opportunity to learn of many things and to acquire knowledge. We have been exposed to scientific method and have had our chance to test, to compare, and to do work in science on our own. We have been shown by masters how truth is pursued and captured. True, we have given of our time, and resources. But nevertheless, we have been singled out from many, by our own doing or with the assistance of others, to receive special exposure and many most cherished privileges. Privileges, do you say? For instance, are examinations privileges? Yes, even they are, in connection with all they are part of. Society does not owe anything special to us. We are debtors to human society. We are able to engage in the flower, the very culmination of civilization, namely creative effort. You may argue that in your work at universities or in industrial organizations, you may have to do work which is not *per se* creative or to your liking. True! This may be the case. But let me challenge you with the question: Is there any work of yours which you cannot turn into a truly creative endeavor of your own?

It is not the so-called idle rich nor the members of the so-called aristocracy who are fortunate; it is we who are among the truly privileged. It is the group of creative workers to which we as scientists and technologists belong, who are the true aristocracy of our civilization. And thus

the old saying "noblesse oblige" applies to us squarely and with compulsion.

If this which I have emphasized should be agreed upon, then motivation relative to responsibility towards country and the human society for which it stands is established. There would then only remain some suggestions and generalities relative to embodiment and fulfilment of these responsibilities. These matters will be of relatively secondary importance since the real driving force is the one which is in the hearts of men or in their conscience.

To fulfill our responsibilities we must contribute to our society those things for which we are particularly or uniquely qualified. Our debt of gratitude for the privilege to work creatively in fields of essentially our own choosing compels us to give *more than average*. Our specific case as scientists and chemists compels us to contribute *uniquely*. Our own individual conscience will tell us how and when, anytime and at all times.

We understand the vital role our profession and allied professions have played, and are playing, in the development of the materialistic components of our civilization—their primary contributions to the raising of the standard of living and general health. Thus, we have been repaying, and in a very substantial manner, our debt to society. Is this generally understood? The answer is "No". Can we let the matter rest this way? Again

"No". The debt is only paid in full when the payment is recognized. It is up to us to see to it that the payments are acknowledged. It is up to us, because we know and understand the situation. We also know that such understandings by the majority of our fellow countrymen is important. Only by our participation in the telling of the correct story will proper perspective be obtained and maintained; thus only will we avoid ill-conceived pseudo, false, or make-believe improvements of our social structure. Enlightened self-interests and obligations to our fellow citizens dictate that we accomplish this task.

True enough, many of us are of the introvert psychological type which does not relish such salesmanship. Again, all we can say is, let us put personal likes and dislikes aside and let us do the job which we must do. The only escape would be if some other group would elect to do this work for us. This, however, has not happened, nor is it likely that it will happen. Others have spoken on the subject to be sure, but not to present the truth as we know it!

We have been given special training. This training is of great value to our country and to our civilization. It is our obligation to see to it that this training is maintained at top level, according to our abilities and capacities. We are trustees of these talents!

Another example of our unique responsibility to our country is the prop-

er utilization of technical manpower in time of national emergency. Much has been said and written on this subject, but as yet proper perspective has not been established. Our obligation is still with us! Knowledge is not enough; we must transmit such knowledge to our fellow citizens, in language which will reach both their hearts and their minds!

As scientists, chemists are familiar with scientific method, the search for truth, and the objective, as opposed to the subjective, method of approach. This scientific method is not the only approach to matters of concern to man, as we are all convinced, it has possibilities of success in many fields of human endeavor where it is now not used. It is up to us to bring such progress about.

We chemists have been fortunate to benefit from, or at least to be exposed to, the major part of our educational system. We should know something about it, and it seems that most of us think that we do. There are many things wrong with our educational system and the philosophy behind it. We must go out of our way to contribute constructively towards improvements and the establishment of true values.

Many more examples of areas in which chemists should contribute and are qualified to contribute could be listed, but this should not be necessary. If the conscience of the individual chemist has a chance to be heard by him, he will find work

to do, and he will find ways and means to execute such work constructively.

There is, however, one further generality which might be discussed to some advantage. We chemists are rather pronounced individualists. This will tend to make our views rather strong and forceful. There is nothing wrong with this as long as objectivity acts as a moderator. This is usually the case as long as the subject is primarily technical in nature. In other fields, however, we are apt to lose our sense of proportion. It is important that we be thoughtful and careful, lest our mission go astray. Fair play, moderation, truth, and objectivity will always be good ingredients for anything we undertake. They will also insure that we speak for our profession as a whole when this is necessary.

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Communications

Voluntary Certification of Professional Personnel

To the Editor:

An unusual approach to questions of professional recognition is described in the following letter from Dr. Amos Anderson, publication of which he has kindly permitted. The psychologists in Ohio have devised a voluntary certification which apparently operates successfully without the compulsions inherent in state licensure. In the belief that this may be of interest to chemists, Dr. Anderson's letter is given below.

—DR. HERBERT W. MACKINNEY
New Jersey Chapter

To Dr. Mackinney:

Our certifying procedure is a voluntary one which came about in approximately the following manner:

Our State Association was confronted with the fact that numerous psychologists at both the M.A. and Ph.D. levels were employed in state institutions, by cities, industries, etc. Our National Association carries in its *Yearbook* the names of psychologists who have reached a certain level of training, but many in the state cannot qualify for American Psychological Association membership. It thus became desirable to have some quasi-official means of designating those psychologists who were adequately trained and qualified and to discourage the employment of persons who might be termed self-styled psy-

chologists. Accordingly, the State Association set up a Board of Examiners which invited members of the State Association to apply for certification. Since our National Association certifies highly qualified individuals in fields of applied psychology by a provision whereby such persons may achieve diplomate status, it seemed to our State Association that we should not designate fields within psychology. Thus we will certify people who teach psychology in colleges, people who are employed in mental institutions, prisons, in industry, and the like provided they meet certain requirements. We began with a "grandfather" clause which extended for well beyond the first year after establishing a Board of Examiners. We were rather lenient in certifying people under this clause, accepting people with M.A.'s, providing they had been functioning in a responsible position. Such a person for example was a man with an M.A. and years of experience as the psychologist of a state institution. On the other hand, we rejected students although they had their M.A.'s and were well toward the Ph.D. on the ground that the "grandfather" clause simply did not apply to them.

Upon the expiration of the "grandfather" clause, we began certifying only persons with the Ph.D. degree. Under both plans, the persons certified had to be endorsed by three other psychologists who, in the judgment of the Board of Examiners,

were sufficiently responsible to be accepted as endorsers. We have just put into effect a plan for granting a kind of second level certification to people at the M.A. level who may receive a temporary certificate designating them as certified psychological technicians. This may not be the exact term but at least covers the meaning.

While this is purely voluntary and while it does not in reality have much significance for such persons as professors in the universities and colleges, the plan has proved to be highly acceptable to our membership. Many persons who hold membership and even diplomate status in our national organizations have applied for and received certification at the state level. In many cases this has been simply an investment in our profession, these persons supporting the certification plan although it had no direct value for them. By now a decided majority of the members of the State Association, which constitutes a goodly portion of the psychologists in the state, have become certified. I should add that certification is far from automatic and that a number of persons have been refused because of lack of qualifications. A few have been refused because of professional ethics. We believe that this certification plan has done much to clarify in the minds of prospective employers the difference between qualified persons and those who are not. From time to time inquiries are made by prospect-

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ive employers as to whether a person is certified. We regard this as something short of the ideal and look forward to some kind of state certification or licensure on a legal basis. In fact, I think it would be no exaggeration to say that what we have done has been designed to set up a working and workable plan prior to seeking legislation.

I regret that I cannot send you a copy of our Constitution with the parts bearing on certification marked, but I had on hand only a few copies and other persons like you have written, asking me questions which could be best answered by sending them a copy. I am now out of copies. I think that if you would write to Miss Rosina Brown, Secretary, Board of Education, Cleveland 14, Ohio, who is our secretary, she would in all probability send you a copy of our Constitution. Of course, your problems will be quite different from ours, but if our experience can be of any help to your group, we shall be only too glad to furnish you with such further information as you may request.

—DR. AMOS C. ANDERSON
Ohio University

COMMUNICATIONS

Appreciated

To THE CHEMIST:

I have just finished reading the latest issue of THE CHEMIST (March) which was given to me by one of my colleagues. I enjoyed the interesting articles very much and would like to know how I may be put on your mailing list.

—H. L. BROWNSTEIN
New York, N. Y.

Informative

To the Secretary:

I enclose check for my first year's membership. I await news of your activities and will be most happy to receive THE CHEMIST, a most interesting and informative publication which I enjoyed reading in the past whenever the occasion presented itself.

—MARCUS E. FRENCH
New York, N. Y.

Private Office: Established by Dr. Frank Makara, F.A.I.C., chemical engineer and registered patent attorney, Room 3208, Woolworth Building, 233 Broadway, New York 7, N. Y.

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Harry L. Fisher, *At-Large*
L. H. Flett, *Past President*
P. J. Gaylor, *New Jersey Chapter*
M. J. Hiler, *Ohio Chapter*
Harry N. Holmes, *At-Large*
H. O. Kauffmann, *Niagara Chapter*
M. J. Kelley, *New York Chapter*

A. Leggin, *Washington Chapter*
Harold A. Levey, *Louisiana Chapter*
John H. Nair, *At-Large*
L. F. Pierce, *Western Chapter*
Donald Price, *At-Large*
M. Sittenfield, *Pennsylvania Chapter*
Foster D. Snell, *Past President*
Raymond Stevens,
New England Chapter
Charles L. Thomas, *At-Large*
Florence E. Wall, *At-Large*
Albin Warth, *Baltimore Chapter*

National Council Meetings

A meeting of the AIC National Council is scheduled to be held at The Chemists' Club, 52 East 41st St., New York, N. Y., at 6:00 p.m. on the following date:

Apr. 14, 1954

May 12, 1954 — Asbury Park

May 14, 1954 — Asbury Park

March Meeting

The 294th meeting of the National Council of THE AMERICAN INSTITUTE OF CHEMISTS was held March 10, 1954, at 6:30 p.m., at The Chemists' Club, 52 East 41st St., New York, N. Y. President Lincoln T. Work presided.

The following officers and councilors were present: J. R. Bowman, C. C. Concannon, D. B. Keyes, J. H. Nair, D. Price, M. Sittenfield, F. D. Snell, C. L. Thomas, F. E. Wall, L. Van Doren, and L. T. Work. K. M. Herstein, chairman of the New York Chapter; P. E. Landolt, chairman, Committee on Public Relations; Richard Robinson, alternate for the Councilor from the New England Chapter; Dr. G. L. Royer, chairman, Committee on Em-

ployer-Employee Relations; D. W. Young, general chairman of the Annual Meeting, and V. F. Kimball, were present.

Dr. Work announced that Honorary AIC Membership would be presented to Francis J. Curtis, at a meeting in the Sheraton Hotel, St. Louis, Mo., on March 23rd.

He announced that the Ohio Award will be presented on April 9th to Dr. James Scott Long, chemical director, Devoe & Reynolds Company, at a meeting of the Ohio Chapter in the Brown Hotel, Louisville, Kentucky.

He reported that he had attended the Chicago meeting at which the employment problems of chemists over forty were discussed.

The Secretary reported a total of 2546 members. He announced with deep regret the deaths of Charles L. Parsons, Hon. AIC, and William B. Newkirk, F.A.I.C. A moment of silence was observed in honor of these members.

A letter from the American Board of Clinical Chemistry requesting two nominations for members of the Board was presented. Dr. Joseph W. E. Harrison was renominated and Dr. Bernard L. Oser was nominated.

The matter of affiliation with the AAAS was again presented, and a committee, consisting of Dr. Van Doren, Dr. Crossley, Mr. Concannon, and Dr. Bowman, was appointed to report at the April Council.

Dr. Henry B. Hass was appointed to the Committee to cooperate with the Department of Agriculture.

Mr. Nair reported for the Committee on Membership, and thanked the Washington Chapter for its voluntary assistance with the preparation of letters.

Dr. Royer, chairman of the Committee on Employer-Employee Relations, reported that this Committee had held two meetings, one in Bound Brook, N. J., and one in Chicago, Ill. A sub-committee will present a suggested form of contract to the April Council.

Dr. M. J. Kelley reported, by letter, as chairman of the Committee on Manual of Chapter Operations, that assignments of material had been made and a manual should be in final form by early fall.

Mr. Landolt said that a questionnaire would be sent to members of his Committee on Public Relations and the replies presented to the Council.

Mr. Young presented a preview of the Annual Meeting Program. The New Jersey Chapter is working with great enthusiasm to make this meeting an outstanding professional gathering.

Mr. Nair reported for the Committee to Consider Dues Rebates. A letter was sent to all of the Chapter chairman suggesting that dues be raised in order to provide funds for more generous rebates. In general, the Chapters were opposed to this solution. During the discussion, it was pointed out that the INSTITUTE is one of the few organizations in the country that has not raised dues. Upon motion made, seconded, and carried, it was decided that the dues would not be raised at the present time.

Mr. Sittenfield stated that the Pennsylvania Chapter plans a meeting in May with a speaker on Employer-Employee Relations and the Award of Student Medals.

Mr. Robinson announced that the New England Chapter plans a meeting in May at which an Honor Award and Student Medals will be given.

Mr. Herstein stated that the New York Chapter will present its 1954 Honor Scroll to Dr. Hans T. Clarke at a May meeting. The New York Chapter's Committee on Professional Status has taken up the matter of the problem of salaries of Municipal Chemists and has presented this matter to the City Administrator.

Mr. Concannon reported for the Washington Chapter.

A letter from Dr. H. A. Neville, chairman of the Committee on Professional Education, listed the speakers and subjects for the Panel on Education to be held during the Annual Meeting.

Dr. Keyes suggested that the Chicago Chapter might appoint a group of young men to serve at the Chemical Exposition in Chicago as advisors to young people about their future careers in industry.

Dr. Keyes, as chairman of the Committee on Manpower, discussed Senate Bill 3068. He contended that this Bill straightens out the interpretation of Public Law No. 51, on military training and service, by putting back into the Bill a clear understanding that we still want selective service in this country.

The following new members were elected:

COUNCIL

FELLOWS

Arvan, Peter George
Research Department, Monsanto Chemical Co., 1700 S. Second St., St. Louis, Mo.

Bailes, Eugene L.
Chief Chemist, Geigy Chemical Corp., 89 Barclay Street, New York, N. Y.

Benham, G. Harvey
Associate Professor, Illinois Institute of Technology, Chicago 16, Illinois.

Bitecover, Ezra H.
Research Chemist, Miner Labs., 619 Washington, Chicago, Ill.

Brockmann, Maxwell Curtis
Director of Research, Kingan Inc., Indianapolis 6, Indiana.

Burk, Emmett, H. Jr.
Research Chemist, Sinclair Research Inc., Chicago, Ill.

Clark, David M.
Research Coordinator, W. R. Grace & Co., 7 Hanover Square, New York, N. F.

Dillinger, Albert J.
Perfumer, Van Ameringen Haebler, Inc., New York, N. Y.

Forrester, Frank Robert
Senior Chemist, Hoffmann La Roche, Inc., Nutley 10, New Jersey.

Guise, Newton Cornelius
Chief Chemist, Calif. Testing Labs., 619 E. Washington Blvd., Los Angeles, California.

Halpern, Alfred
Scientific Director, E. Fougere & Co., Inc., New York, N. Y.

Hartz, John J.
Manager, Tire Compounding, Goodyear Tire & Rubber Co., Akron, Ohio.

Hopp, Francis J.
Senior Research Assistant, Universal Oil Products, Co., Des Plaines, Ill.

Jewell, K. Austin
Consulting Engineer, 2125½ Ridge Avenue, Evanston, Ill.

Kenney, Edward F.
Chief Chemist, U. S. Customs Lab., 201 Varick Street, New York 14, N.Y.

Leet, Richard Hale
Research Department, Standard Oil Co. (Indiana) 910 South Michigan Ave., Chicago 80, Illinois.

Mackey, Robert John
Electronics Research Lab., Stanford University, Stanford, Calif.

Meints, Ralph Edward
Vern E. Alden Co., Chicago, Ill.

Moser, Charles E.
Director of Research, The Texas Co., 135 E. 42nd Street, New York, N. Y.

Newberg, Raymond G.
Group Leader, Standard Oil Development Co., Linden, New Jersey.

Newman, Pauline
Research Chemist, American Cyanamid Co., Pigments Div., Bound Brook, New Jersey.

Petersen, Christian A.
General Manager, George W. Gooch Labs. Ltd., Los Angeles, California.

Pimbley, George H.
Turco Products, Inc., Los Angeles, California.

Ravve, Abraham
Research Chemist, Miner Labs., Chicago, Ill.

Ritt, Paul E.
Engineer, Melpar Inc., 452 Swann Ave., Alexandria, Virginia.

Rovey, John S.
Vice President in charge of sales, H. S. Martin & Co., Evanston, Ill.

Schwan, Theodore C.
Consulting Chemist, Continental Diamond Fibre Co., Valparaiso, Indiana.

Sher, Ben C.
Research Chemist, Municipal T. B. Sanitarium, Chicago, Ill.

Stephenson, Henry Douglas
Salesman, Los Angeles Chemical Co., Los Angeles, California.

MEMBERS

Costigan, James T.
District Manager, Sharples Corp., 501 5th Ave., New York, N. Y.

Feo, Edmond Guy
Analytical Chemist, Smith-Emery Co., 920 Santee St., Los Angeles, California.

French, Marcus E.
Chemist, National Aniline Div., Allied Chemical & Dye Corp., 40 Rector St., New York, N. Y.

Henning, James Edward
Bjorksten Research Labs., Madison, Wisconsin.

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ASSOCIATES

Koch, George

Research Biochemist, Charles Pfizer & Co., 11 Bartlett St., Brooklyn 6, New York.

REINSTATED TO FELLOW

Darling, Elton R.

Research Director, Lauhoff Grain Co., Danville, Illinois.

Feuer, Bertram

Consulting Bacteriologist, 642 North Michigan Ave., Chicago, Ill.

LIFE MEMBERSHIP

Herstein, Karl M.

President, Herstein Labs., Inc., 66 Beaver St., New York 4, New York.

AIC Activities

C. P. Neidig, F.A.I.C.

New York Chapter

Chairman, Karl M. Herstein

Vice-chairman, Savery F. Coneybear

Secretary-Treasurer, Richard L. Moore, Foster D. Snell, Inc., 29 W. 15th St. New York 11, N. Y.

Representative to National Council, Dr. Maurice J. Kelley

Honor Scroll Meeting

The 1954 Honor Scroll of the New York Chapter of THE AMERICAN INSTITUTE OF CHEMISTS will be presented to Dr. Hans Thacher Clarke, F.A.I.C., professor of biochemistry and head of the department, College of Physicians and Surgeons, Columbia University, at the annual meeting of the chapter, at the Hotel Commodore, New York, N. Y. May 20.

Before the presentation of the award by Karl M. Herstein, chairman of the New York Chapter, Dr. Edgar G. Miller, Jr., dean of Graduate Studies at Columbia

University, will speak on Dr. Clarke's distinguished career as a scientist, a teacher, and an administrator.

Dr. Clarke's principal field of research has been on the chemistry of biological compounds. He has been active in this field since he joined the faculty of Columbia University in 1928. Before that, he was a research organic chemist with Eastman Kodak Co. for fourteen years. In 1951-52, Dr. Clarke was scientific attaché at the United States Embassy in London. He had previously served the government in the office of Scientific Research and Development and the United States Public Health Service.

Born in England, Dr. Clarke received both the B. Sc. and D. Sc. degrees from University College, London. He also did graduate study at the University of Berlin, and holds an honorary doctor's degree from the University of Rochester. Dr. Clarke has written two chemistry textbooks and has been active in editorial work for various scientific journals. He is former president of the American Society of Biological Chemists, former president of the Harvey Society, former chairman of the New York Section of the American Chemical Society and a former divisional chairman of that society.

The first event on the evening's program will be a reception sponsored by the Eastman Kodak Company in honor of Dr. Clarke. Reservations for the dinner which will follow should be made by writing or calling Shepherd Stigman, 29 W. 15th Street, New York, N. Y. (WA 4-8800). There will be a surcharge for tickets purchased at the door without a reservation. The dinner will be followed by a short business meeting at which the New York Chapter will elect officers for the coming year. After the presentation of the Honor Scroll, Dr. Clarke will address the meeting.

Summer Positions

The New York Chapter, through its Young Chemists' Activities Committee, has set up a central clearing house designed to place chemistry and chemical engineering students in summer jobs that will train them for careers.

Qualified records of over 150 college students in the New York Metropolitan and Long Island area are already in the

AIC ACTIVITIES

file, maintained at the office of Prof. Ernest I. Becker, Polytechnic Institute of Brooklyn, 94 Livingston St., Brooklyn, N. Y. Employers may make appointments to review the file by calling Prof. Becker at TR 5-6412.

The file contains only the names of students who are seriously seeking summer employment in the chemical and allied industries, and who have taken the initiative to fill out the necessary forms. Names of students who have accepted employment will be removed immediately.

Prof. Becker, chairman of the Young Chemists' Activities Committee, pointed out, as an illustration of the need of such a clearing house, that one company alone took thirty-five of the names on the list for interviews to fill twenty jobs this summer.

Karl M. Herstein, chairman of the New York Chapter, stated that this new service is certain to become a regular part of the program of professional activities sponsored by the chapter. He recommends that other AIC Chapters throughout the country follow suit.

Western Chapter

Chairman, Peter Stupin

Vice-Chairman, Dr. Kenneth Newman

Secretaries: Miss Blanche C. Simons, 718 North Fairfax Ave., Los Angeles 46, Calif.

Tom Rollins, Keldon Research, Los Angeles 54, Calif.

Representative to National Council, Dr. L. F. Pierce

April Meeting

The April meeting will be held at Rand's Roundup, 8401 S. Figueroa, Los Angeles, Calif., April 8th. The speaker is Frank B. Bolte, chief research engineer of the Northrop Aircraft Company. His subject, "The Relationship of the Chemist and Materials Engineer to Modern Aircraft Design," stresses the dramatic changes that have taken place in the design of aircraft. The transition from the propeller-driven type of craft to the jet planes has produced problems that challenge all the initiative and ingenuity of the engineer and the chemist. He is well-known throughout the aircraft industry through his long service with Boeing Aircraft in Seattle, North American Aviation

Western Chapter Honor Scroll

The Honor Scroll of the Western AIC Chapter will be presented to Dr. Robert Evans Vivian, dean of the College of Engineering at the University of Southern California, "who has served his fellowmen in the capacity of an administrator . . . and as a representative of the United States Government on missions to foreign countries." The presentation will take place at a meeting of the Chapter to be held in May.

in Los Angeles, and now Northrop Aircraft in Hawthorne. Nominations for officers of the Chapter will also be presented during a brief business meeting.

May Meeting

The Honor Scroll of the Western Chapter will be presented to Dr. Robert Evans Vivian, dean of the College of Engineering, University of Southern California, at a meeting to be held during the last week of May. Dr. Vivian, who received the Ph.D. degree from Columbia University in 1933, was recently on leave from the University of Southern California to serve as chemical production specialist, of the Mutual Security Agency, U. S. Mission to Italy (1952), and as technical consultant, Mutual Security Agency in Japan, Formosa, Thailand, and Malaya, (1953).

Will You Come

April 2, 1954. Chicago Chapter. Chicago Engineers' Club, 314 So. Federal St., Chicago, Ill. "Mixer" at 6:00 p.m. Dr. Charles C. Price, F.A.I.C., Head, Department of Chemistry, University of Notre Dame. Subject, "Science, Power and Freedom."

April 9, 1954. Ohio Chapter. Annual Meeting. Brown Hotel, Louisville, Kentucky. Plant Trip, Business Meeting, Presentation of Ohio Award to Dr. James Scott Long, F.A.I.C., Chemical Director, Devco & Reynolds Co.

April 13, 1954. Washington Chapter. Luncheon, 12:15 p.m. Bonat's Restaurant, Washington, D.C. Discussion of Chapter activities and business matters.

April 27, 1954. New Jersey Chapter. Annual Meeting. Military Park Hotel, Newark, N. J. Presentation of the 1954 Honor Scroll to Prof. Peter Van der Meulen, director, School of Chemistry, Rutgers University. Presentation by Dr. J. B. Allison. Dr. D. L. Cottle of Standard Oil Development Corp., will speak for the recipient. Prof. Van der Meulen's acceptance address will be "A Chemist Looks at Educational Industrial, and Community Life." Student Medals will be awarded to outstanding students from Newark College of Engineering, Princeton, Rutgers, and Seton Hall. Dinner (\$2.90) at 6:30 p.m. For reservations, Dr. W. R. Sullivan, Hoffman-LaRoche, Inc., Nutley 10, N. J. (Nutley 2-5000, ext. 346.)

May —, 1954. (Day to be announced). Meeting of Louisiana Chapter, New Orleans, La. Award of first Honor Scroll to Prof. Paul Bailey, F.A.I.C., of Loyola University, New Orleans, 18, La. For information: Harold A. Levey, 8127-33 Oleander St., New Orleans 18, La.

May —, 1954. (Day in last week of May to be announced.) Presentation of the Honor Scroll of the Western Chapter to Dr. Robert Evans Vivian, dean, College of Engineering, University of Southern California, Los Angeles, Calif. For information: Dr. Romeo P. Allard, Department of Chemistry, Loyola University, Los Angeles 45, Calif.

May 12, 13, 14, 1954. AIC Annual Meeting. Berkeley Carteret Hotel, Asbury Park, N. J. (See page —.)

May 12, 1954. Niagara Chapter. Dinner meeting. Symposium on Atmospheric Pollution arranged by Marvin J. Udy, F.A.I.C. Award of student medals to senior students from University of Buffalo, Canisius College, and Niagara University. For information, Frederick L. Koethen, Route 19, River Road, Niagara Falls, N. Y.

Louisiana Chapter Honor Scroll

The first Honor Scroll of the Louisiana AIC Chapter will be presented to Prof. Paul F. Bailey, professor of chemistry at Loyola University, New Orleans, for his inspired teaching of chemistry. The Scroll will be presented at a meeting of the Chapter tentatively set for the middle of May.

May 18, 1954. (Tuesday) 8:00 to 8:30 p.m., AIC broadcast on WATV—Channel 13, as part of the New Jersey "Know Your State" television series. Entitled, "It's Chemists Serve You," the program features Dr. Lincoln T. Work, AIC president; Dr. William J. Sparks, 1954 AIC Gold Medalist, and Robert M. Thomas, co-inventor of Butyl rubber. Moderator: Robert McDougall, director of educational programs for WATV. If you are in the New York-New Jersey area served by this station, please watch Channel 13 on this date.

May 20, 1954. New York Chapter Annual Meeting. Hotel Commodore, New York, N. Y. Reception, courtesy of Eastman Kodak Company, 6:30 p.m. Dinner 7:30 p.m. Presentation of the Chapter's Honor Scroll to Dr. Hans Thacher Clarke, F.A.I.C., professor of biochemistry and head of the department, College of Physicians and Surgeons, Columbia University, New York, N. Y. Speaker for the Recipient, Dr. Edgar G. Miller, Jr., dean of Graduate Studies at Columbia University. Karl M. Herstein, chairman of the Chapter, will present the Honor Scroll. For advance reservations: Shepherd Stigman, 29 W. 15th St., New York, N.Y. (WA 4-8800). (There will be a surcharge for tickets purchased at the door without advance reservation.)

June 4, 1954. Chicago Chapter. Dinner (\$3.25 per person) 6:30 p.m. Mixer, 6:00 p.m. Meeting 7:30 p.m. Chicago Engineers Club, 314 South Federal St. Speaker, Dr. William F. Egerton, Department of Oriental Languages, University of Chicago, "Professional Guilds. What They Are. What They Do." For

WILL YOU COME

May 12, 13, 14, 1955. AIC Annual Meeting. Chicago, Illinois. The Chicago Chapter has appointed Clifford A. Hampel to initiate arrangements.

May, 1956. AIC Annual Meeting. Tentatively scheduled for Washington, D.C.

LATE ITEMS

May 6, 1954. Pennsylvania Chapter. Engineers Club, Philadelphia. Speaker, Dr. W. R. Bender, "New Trends in Personnel Relations." Reservations: Dr. C. H. Neufeld, Eastern Regional Research Lab., Philadelphia 18, Pa.

May 26, 1954. New England Chapter. M.I.T. Faculty Club. Honor Scroll to Prof. Avery Ashdown. Student Awards. For information, Richard S. Robinson, Arthur D. Little, Inc., 30 Memorial Drive, Cambridge, Mass.

Summer Laboratory Courses:

Offered by The Polytechnic Institute of Brooklyn: "Progress in Polymerization & Copolymerization Techniques," June 28-July 2; "Properties of Macromolecules in Solution . . .", July 12-16; and "Industrial Applications of X-ray Diffraction," Aug. 23-Sept. 3. Address inquiries to Mrs. Doris Cattell, Secretary, Summer Laboratory Courses, Polytechnic Institute of Brooklyn, 99 Livingston St., Brooklyn 1, N. Y.

Meeting: The Tenth International Congress of Agricultural and Food Industries to be held in Madrid, Spain, May 30 to June 6, 1954. For information, write: Secretariado General del X Congreso Internacional de Industrias Agrícolas y Alimenticias. Zurbano num. 3, Madrid, España.

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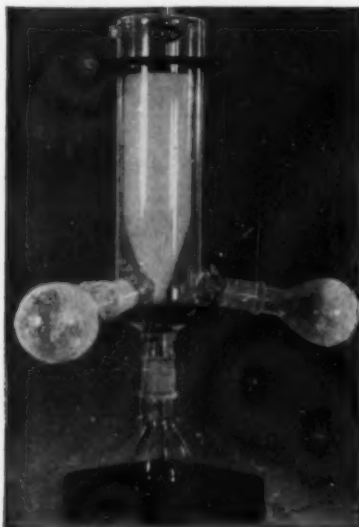
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AIC members who are seeking positions may place notices in this column without charge.

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Herbert P. Pearson, F.A.I.C., age 65, wants to place his long experience as research chemist at the disposal of an established manufacturer. Box 48, THE CHEMIST.

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Textile Technician: (female). Textile Laboratory. College graduate, major in Chemistry or Home Economics. Textiles with a heavy chemistry background. Previous experience in textile laboratory, or similar work required. Salary approximately \$275 per month. Send typed resume. Box 41, THE CHEMIST.

Chemical Market Analyst: B.S. degree in chem. required. 3 to 5 yrs. experience in market research projects in chemicals industry. Established company offers going rate plus insurance and retirement pensions and profit sharing plan. Good opportunity. Box 47, THE CHEMIST.

Appointed: Dr. N. N. T. Samaras, F.A.I.C., as assistant general manager of Monsanto Chemical Company's newly formed Research and Engineering Division, St. Louis 4, Missouri.

For Your Library

Animal Biochromes and Structural Colors

By Denis L. Fox. New York: Cambridge University Press. 1953. 6½" x 10", 3/9 pp. \$11.00.

This volume reviews and classifies the present knowledge of the chemical and physical systems that give rise to colors in animals. Plants are covered to a lesser extent. The book contains the following chapters: Foundations of colors; Structural colors; Tyndall scattering and diffraction colors; Iridescent colors; Carotenoids; Chromolipoids; Anthocyanins and flavones; Indole pigments; Tetrapyrroles; Flavins; Purins; Miscellaneous animal biochromes. The book is excellently illustrated with numerous figures, tables, and graphs. There is a bibliography and a subject index. The subject matter is well covered. Early as well as recent developments are presented with great care. This volume offers interesting reading even to those chemists not engaged in biochemical research.

DR. HENRY TAUBER, F.A.I.C.

Fundamentals of Physical Science

By Konrad Bates Krauskopf, (Stanford University). McGraw-Hill Book Co., 6" x 9". 694 pp. \$6.00.

This is a survey of science; astronomy, physics, chemistry and geology, in a simple yet not elementary manner, interestingly written and of college entrance calibre.

—DR. JOHN A. STEFFENS, F.A.I.C.

Quantitative Organic Analysis Via Functional Groups

Second Edition. By Sidney Siggia, John Wiley & Sons, Inc. 1954. 227 pp. 5¼" x 8¼". \$5.00.

This book provides a valuable service for the quantitative organic analyst. It presents in compact, yet comprehensive, form the most satisfactory methods for the analysis of an organic chemical by its characteristic functional groups rather than its individual elements. The procedures described in literature have been adapted, modified, and improved and new methods have been introduced where the "standard" procedure is inapplicable. Illustrations are not profuse, but are entirely adequate.

—H. B. WYCOFF

The Bile Pigments

By C. H. Gray. John Wiley & Sons, Inc. 1953. 142 pp. Price \$1.75.

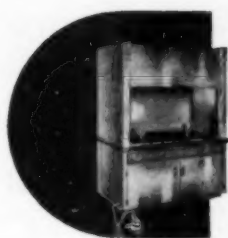
This slender little volume, by a professor of chemical pathology in the University of London, is intended to provide a readable, useful and brief account of the bile pigments, particularly in relation to man, for the use of biochemists and medical men. Beginning with the chemistry of these pigments, Dr. Gray discusses their physiology and pathology in such a way as to illustrate the stimulus provided to the basic sciences by problems originating in the art and practice of medicine. References at the end of each chapter make it possible for the reader to amplify the summary information given here.

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Chemical Books Abroad

Rudolph Seiden, F.A.I.C.

Walter de Gruyter & Co., Berlin W 35: *Experimentelle Einführung in die anorganische Chemie*, by W. Klemm and W. Fischer; 47th ed., 191 pp.; DM 10.80.—The first edition of this well-known laboratory book was published in 1898; it has been used by tens of thousands of students to acquaint them with the properties of metals and non-metals, their chemical reactions, and at the same introducing them to the fundamental facts, laws, and rules of inorganic chemistry.

Routledge & Kegan Paul, London E C 4: *British Scientists of the Twentieth Century*, by J. G. Crowther; 1952, 320 pp. (9 ill.); 25s.—The scientific correspondent of the Manchester Guardian adds to his many brilliant books, in which he interprets the social relations of science, another masterpiece: here he shows in the biographies of six eminent scientists—J. J. Thompson, E. Rutherford, J. H. Jeans, A. S. Eddington, G. Hopkins, and W. Bateson—the effects their discoveries had on our time and speculates how they may influence the future of science and society.

Verlag Dr. Dietrich Steinkopff, Darmstadt: *Aufgabensammlung zur Thermody-*

namik des Waerme-und Stoffaustausches in der Verfahrenstechnik, by W. Matz; 1953, 138 pp.; paper covers, DM 16.—Author solves mathematically 100 thermodynamic problems selected from those confronting chemists and engineers in industries which deal with the exchange of heat and material.

Something New

"Centrifugal Pumps." Information. Pioneer Pump Div., Detroit Harvester Co., 14300 Tireman Ave., Detroit 28, Mich.

"High Current Test Meter." Information. Multi-Amp Corporation, 10-3rd St., Newark, N. J.

"Laboratory Stirrer, High Speed, Low Vacuums, No Mercury Seal." Bul. 1280. Labline, Inc., 217 N. Desplaine St., Chicago 6, Ill.

"Infra Red Lamp—Compact Tube." Information. General Electric Co., Nela Park, Cleveland 12, Ohio.

"High Pressure, High Temperature Valves." Information. The Annin Co., 6570 E. Telegraph Road, Los Angeles 22, Calif.

"Warning Strips, Self-Sticking." Information. W. H. Brady Co., 727 W. Glendale Ave., Milwaukee 12, Wis.

"Emergency Blanket." Information. Industrial Products Co., Philadelphia 33, Pa.

"Flow Control Valves." Catalog. A-P Controls Corp., 2450 North 32nd St., Milwaukee, Wis.

"Adenosine Triphosphate Sodium." Information. Sigma Chemical Co., 4648 Easton Ave., St. Louis 13, Mo.

"Distillation Laboratory Column, Dalin." Scientific Glass Apparatus Co., Inc. 100 Lakewood Terrace, Bloomfield, N. J.

"Specialized Equipment," and "Men, Facilities, Know How." Bulletins. L. O. Koven & Brother, Inc., 154 Ogden Ave., Jersey City 7, N. J.

"The Scientific Manpower Information Bulletin Series." Limited number of copies are available upon request from those concerned with scientific manpower. Address requests to National Science Foundation, Washington 25, D.C.

"Wallet containing CHEMBILLS." Bill sized pictures and information about leading chemists. Available on request to The Cooper Alloy Foundry Co., Hillside, New Jersey.

"Proceedings of a Conference on the Utilization of Scientific and Professional Manpower." Book. \$3.50. Columbia University Press, New York 27, N.Y.

"Acintol Tall Oil Products." Information brochure. Arizona Chemical Co., 30 Rockefeller Plaza, New York 20, N.Y.

"Glyceryl Monooleate (S1096R)." Information and samples. Glyco Products Co., Inc., 26 Court St., Brooklyn 2, N.Y.

"Dustmaster Catalog." Mechanical dust collector information. A. W. Banister Co., Inc., 23 Charles St., Cambridge 41, Mass.

"Cowles Ultrafast Dissolver." Information. Cowles Co., Inc., Cayuga, N. Y.

"Fatty Alcohols." Technical Bulletin No. 903-A. Archer-Daniels-Midland Co., 2191 West 110th St., Cleveland, Ohio.

"Optical Pyrometer," Catalog No. 85. The Pyrometer Instrument Co., Inc., Bergenfield, N. J.

"Research & Control Instruments—X-ray & Analytical Equipment." Catalog. North American Philips Co., Inc., Mount Vernon, N. Y.

"Fisher Vibro-Spatula." Information. Fisher Scientific Co., 717 Forbes St., Pittsburgh 19, Pa.

"Machine & Tool Accessories." Catalog No. 52. George F. Bub & Son, 7413 Lanier Drive, Cleveland 30, Ohio.

"Services for the Conservation of Industrial Health." Leaflet. "Emmet Technical Associates, 92 Liberty St., New York 6, N. Y.

Condensates

Ed. F. Degering, F.A.I.C.

Latest figures indicate that there is a business firm of some type or another for every 38 people, a total of 4.2 million business firms of all types in the U.S. and increasing at the rate of about 50,000 per year.

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Aluminum putty for sculptors and hobbyists models like clay and hardens into a solid piece without baking, flux, or chemical treatment.

Valentine Pulp and Paper is building a \$4.5 million plant at Lockport, Louisiana, to manufacture different types of paper from crushed sugar cane pulp, of which about 750,000 tons are available annually in the area.

A grant of \$30,500 will be expended in the Hawaiian Islands in an attempt to do salt-water farming in the hope that saline-agriculture farming may pay out and aid many areas of the world.

While drilling the deepest well in the world, oil men took a routine "bottom hole" temperature at 20,003 feet and found it to be 334° F.

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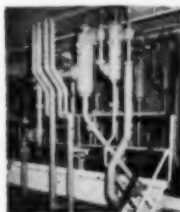
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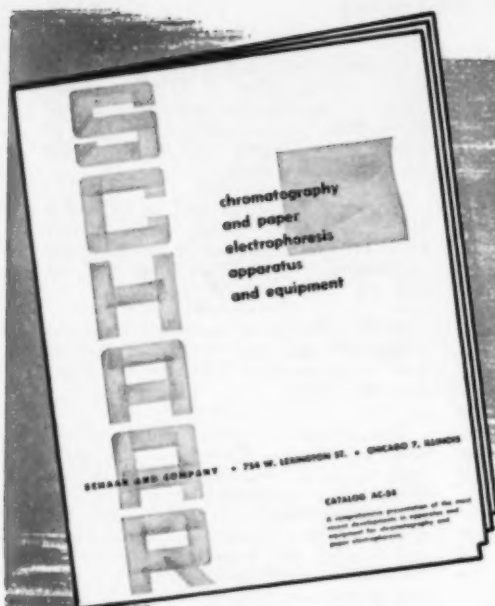


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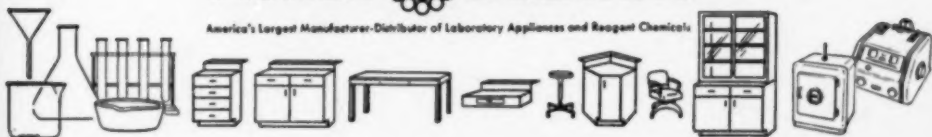
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